Remarks

Claims 1-46 are pending. Claims 19-33 and 35-46 have been withdrawn. Claims 1-18 and 34 have been rejected.

Rejections under 35 U.S.C. 102

Claims 1, 3, 4, 7, 10, 11, 13, 15-17 and 34 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,358,557 to Wang et al. ("Wang").

Claim 1 is drawn to a method for immobilizing an anti-thrombogenic material into a coating posited on a surface of an implantable medical device within the mammalian body. The method includes: (a) preparing a base coat mixture for application to the surface of the medical device, wherein the base coat mixture is applied directly to an implantable medical device; (b) polymerizing the base coat mixture to form a base coat layer on the medical device; and (c) immobilizing the anti-thrombogenic material directly to chemically functional groups within the base coat layer on the surface of the medical device via a reaction with a chemical agent.

Wang describes a method of coating a substrate by exposing a substrate to an initiator capable of initiating a graft polymerization reaction on the substrate to generate reactive radical sites on the surface of the substrate, contacting the substrate with a composition comprising one or more monomers in a medium which has different hydrophilicity compared to the substrate, and grafting monomer molecules onto the substrate by forming covalent bonds between monomer molecules and the substrate at reactive radical sites on the substrate surface to form a graft polymer layer. Wang also

describes that an agent such as heparin can be entrapped with or without covalent interactions with functional groups that may or may not exist on the graft polymer layer.

Wang does not describe immobilizing an anti-thrombogenic material to the functional groups within the base coat layer on the surface **by reaction of the anti-thrombogenic material with the functional groups via a chemical agent**. Immobilization of the anti-thrombogenic material to a base coat layer on the surface of a medical device having functional groups by a reaction of the functional groups **with** the anti-thrombogenic material via a chemical agent is different from immobilization of the anti-thrombogenic material to the base coat layer **without** a reaction of the functional groups with the anti-thrombogenic material via a chemical agent. Contrast to the Examiner's assertion that end-immobilization can happen via the pendant amine group of the heparin compound and the functional groups within the base coat layer, end-immobilization will not occur unless a chemical agent such as a Schiff base is used (see description at page 10, line 22 to page 11, line 1 of the specification). This is clearly shown by Examples 1 and 2 (immobilization without a reaction with a chemical agent) and Examples 3-5 (immobilization with a reaction with a chemical agent).

Accordingly, claim 1 is patentably allowable over Wang. Claims 3, 4, 7, 10, 11 and 13 depend from claim 1 and are patentably allowable over Wang for at least the same reason.

Claim 15 is drawn to a method for end-immobilizing an anti-thrombogenic material into a coating posited on a surface of an implantable medical device within the mammalian body. The method includes: (1) preparing a base coat mixture for application to the surface of the medical device, wherein the base coat mixture is applied directly to

an implantable medical device; (2) polymerizing the base coat mixture to form a base coat layer on the medical device; and (3) end-immobilizing the anti-thrombogenic material, through a group that terminates the anti-thrombogenic material, directly to chemically functional groups within the base coat layer on the surface of the medical device. The end-immobilizing is by reaction of the functional groups with the anti-thrombogenic material via a chemical agent. As discussed above, Wang does not describe end-immobilizing an anti-thrombogenic material to the base coat layer by reaction of the functional groups with the anti-thrombogenic material via a chemical agent. Accordingly, claim 15 is patentably allowable over Wang. Claims 16 and 17 depend from claim 15 and are patentably allowable over Wang for at least the same reason.

Claim 34 is drawn to a method for immobilizing an anti-thrombogenic material into a coating posited on a surface of an implantable medical device within the mammalian body. The method includes: (1) preparing a base coat mixture for application to the medical device; (2) polymerizing the base coat mixture to form a base coat layer on the medical device; and (3) immobilizing the anti-thrombogenic material directly to chemically functional groups within the base coat layer on the medical device. The immobilizing is by reaction of the functional groups and the anti-thrombogenic material via a chemical agent. Wang does not describe end-immobilizing an anti-thrombogenic material to the base coat layer by reaction of the functional groups with the anti-thrombogenic material via a chemical agent. Accordingly, claim 34 is patentably allowable over Wang.

Rejections under 35 U.S.C. 103

Claims 2, 8, 9, 12, 14 and 18 have been rejected under 35 U.S.C. 103(a) as being obvious over Wang. Claims 2, 8, 9, 12 and 14 depend from claim 1 and require immobilizing of the anti-thrombogenic material recited therein by reaction of functional groups within a base coat layer defined therein with the anti-thrombogenic material via a chemical agent. As discussed previously, Wang does not describe or teach this element. Therefore, claims 2, 8, 9, 12 and 14 are patentably allowable over Wang.

Claim 18 depends from claim 15 and requires end-immobilizing the anti-thrombogenic material recited therein by reaction of functional groups within a base coat layer defined therein with the anti-thrombogenic material via a chemical agent. Because Wang does not describe or teach this element, claim 18 is patentably allowable over Wang.

Claims 5 and 6 have been rejected as being obvious over Wang in light of U.S. Patent No. 5,620,738 to Fan et al. ("Fan"). Claims 5 and 6 depend from claim 1 and require immobilizing of the anti-thrombogenic material recited therein by reaction of functional groups within a base coat layer defined therein with the anti-thrombogenic material via a chemical agent. Wang does not describe or teach this element. Fan describes using a binder polymer with aldehyde or isocyanate functional groups to attach lubricious acrylic-based polymers to stents. Fan, as such, does not cure the deficiency of Wang. Accordingly, claims 5 and 6 are patentably allowable over Wang and Fan, individually or combined.

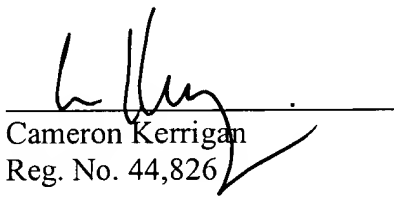
CONCLUSION

Withdrawal of the rejections and allowance of the claims is respectfully requested. Should the Examiner have any questions regarding this communication, the Examiner is invited to contact the undersigned at the telephone number shown below.

The undersigned authorizes the examiner to charge any fees that may be required or credit of any overpayment to be made to Deposit Account No. 07-1850.

Date: April 26, 2006

Respectfully submitted,



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